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REMARKS

This is a response to Office Action dated December 10, 2001 in which a shortened period of three months was set. Claims 1-65 are pending. The Applicants have amended claims 1, 13, 18, 23, 43 and 45 to overcome the Examiner's rejections under 35 U.S.C. § 112 based on the use of the term "desired", and claim 7 in response to the Examiner's objection of the use of the term "whereby". Note that Applicants cannot identify the term "mildly" in the referenced claims 1-16, 18, 23 and 43-45, and respectfully request that the Examiner assist Applicant in identifying said language so that Applicants may prepare an appropriate correction. No new matter has been added.

Claim Rejections Under 35 U.S.C. § 102(b)

The Examiner has rejected of claims 1, 15, 17-19, 21 (second claim 21), 23, 30, 31, 38, 43, 46, 52, 53, 60, 62 and 64 under 35 U.S.C. § 102(b) as being anticipated by Stone et al., United States Patent Number 5,415,949, (the '949 patent). In light of the remarks herein, applicants respectfully traverse this rejection:

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988).

The test for anticipation is symmetrical to the test for infringement and has been stated as: "That which would literally infringe [a claim] if later in time anticipates if earlier than the date of invention." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); *Connell v. Sears Roebuck & Co.*, 722 F.2d 1542, 1548, 220 U.S.P.Q. 1931, 1938 (Fed. Cir. 1983).

However, in the present claim 1, it cannot be said that the system of Stone would infringe. As recited in claim 1, the claimed invention comprises a fuel cell battery structure comprising at least two fuel cells and an electrical connector block. The fuel cells are electrically interconnected into a battery structure via the connector block. Each cell comprises an anode and cathode element, and each of the anode and cathode elements are provided with a terminal conductor element positioned on one side of the respective fuel cells. Electrical connection of the anodes and cathodes of the stacked

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cells is provided into a series, parallel or mixed series and parallel electrical interconnection with the other fuel cells on the side of the respective fuel cells having the terminal conductor elements. The connector block further serves to provide mechanical engagement of the individual fuel cells. Another side of each of the fuel cells remains exposed to permit disengagement and removal of the fuel cells from the block.

The Examiner asserts that the structure of bus straps and housing of Stone et al. is equivalent to the connector block. Applicants respectfully disagree. The housing 406 does not provide for a side of each of the fuel cells that remains exposed to permit disengagement and removal of the fuel cells from the block. Further, the electrical connection and mechanical support are provided by the connector block only in the present claim 1, whereas Stone et al. requires both the bus bar straps and the separate housing 406. The bus bar straps¹⁰¹ and the housing 406 are in no way integrated.

Likewise, in the present claims 17 and 38, it cannot be said that the system of Stone would infringe either of the claims. As recited in claim 17 and 38, the claimed inventions comprise a fuel cell battery device comprising a plurality fuel cells and an electrical connector block. The connector block provides independent and releasable mechanical engagement of the individual fuel cells.

Applicants respectfully disagree with the Examiner in that the structure of bus straps and housing of Stone et al. is equivalent to the connector block. The housing 406 does not provide for independent and releasable mechanical engagement of the individual fuel cells – contrarily, the entire fuel unit 403 of Stone, which includes the housing 406, is replaceable, allowing reuse of the base unit 404 and other supporting connections.

Therefore, the rejections under 35 U.S.C § 102(b) should be removed and claims 1, 17 and 38 should be allowed. Since claims 15, 18-19, 21 (second claim 21), 23, 30, 31, 43, 46, 52, 53, 60, 62 and 64 all variously depend from claims 1, 17 and 38, the above arguments equally apply thereto.

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In the Claims

In accordance with 37 CFR § 1.121(c), the following versions of the claims as rewritten by the foregoing amendment show all the changes made relative to the previous versions of the claims.

1. (Amended) A fuel cell battery structure comprising:

at least two fuel cells each comprising an anode, cathode, and an ionically-conducting medium disposed therebetween;

- 5 a connector block, disposed adjacent to one side of the at least two fuel cells, comprising means for electrically connecting the anodes and cathodes of the stacked cells into ~~a desired~~ an electrical interconnection selected from the group consisting of series electrical interconnection, parallel electrical interconnection and mixed series and parallel electrical interconnection, and wherein said block mechanically holds the respective fuel cells in a fixed position as a result of mechanical engagement; and
- 10 wherein another side of the at least two fuel cells remains exposed to permit disengagement and removal of the fuel cells from the connector block.

7. (Amended) The fuel cell battery of claim 6, wherein said block is supported by support means to ~~thereby~~ provide an open area beneath said block as part of said air duct.

13. (Amended) The fuel cell battery of claim 10, wherein said apertures are through apertures, and said block is comprised of an electrically insulating material; wherein the means for electrically connecting the anodes and cathodes of the stacked cells into a desired electrical interconnection comprises electrically conductive receptacle
- 5 elements disposed within each of said apertures for engagement with said terminal conductor elements and for selective electrical interconnection into an electrical interconnection selected from the group consisting of series electrical interconnection, parallel electrical interconnection and mixed series and parallel electrical interconnections ~~a desired electrical arrangement of said fuel cells~~.

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18. (Amended) The FCB device of claim 17, wherein the connector block further comprises a configuration means integral thereto; the configuration means, electrically coupled to the cathode terminating element and anode terminating element of the plurality of fuel cells, for configuring the plurality of fuel cells into an electrical interconnection selected from the group consisting of series electrical interconnection, parallel electrical interconnection and mixed series and parallel electrical interconnection~~a desired interconnection arrangement~~.

23. (Amended) The FCB device of claim 22, wherein the connector block further comprises a configuration means integral thereto; the configuration means,, electrically coupled to the cathode terminating element and anode terminating element of the plurality of fuel cells, for configuring the plurality of fuel cells into an electrical interconnection selected from the group consisting of series electrical interconnection, parallel electrical interconnection and mixed series and parallel electrical interconnection~~a desired interconnection arrangement~~.

43. (Amended) The FCB device of claim 38, wherein the connector block further comprises a configuration means integral thereto; the configuration means, electrically coupled to the cathode terminating elements and anode terminating elements of the fuel cells, for configuring the plurality of fuel cells into an electrical interconnection selected from the group consisting of series electrical interconnection, parallel electrical interconnection and mixed series and parallel electrical interconnection~~a desired interconnection arrangement~~.

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45. (Amended) The FCB device of claim 43, wherein the configuration means comprises a switching network electrically coupled to terminal ends of electrical connecting elements that slidably mate with interconnecting elements electrically coupled to the cathode terminating elements and anode terminating elements for the cathodes and anodes of the plurality of fuel cells, wherein the switching network operates under in response to control signals from a controller, to configuring the plurality of fuel cells into an electrical interconnection selected from the group consisting of series electrical interconnection, parallel electrical interconnection and mixed series and parallel electrical interconnection ~~a desired interconnection arrangement~~ for output to at least one pair of output terminals.

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Conclusion

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

The present response is mailed within THREE MONTHS of the mailing date of the Office Action, since March 10, 2002 fell on a Sunday, and the present response is mailed on Monday, March 11, 2002, the successive weekday).

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 501648 maintained by Applicants' attorneys.

Respectfully submitted,

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